

Mimulus Memo



JANUARY 2022

CONTENTS

- Road-Tripping, Fall 2021 - 1
- Cactus Work at Tollhouse Ranch - 4
- President's Message - 5
- Help Needed - 7
- Appreciation - 7
- Upcoming Programs - 7

EVENTS

JANUARY
21 – Zoom Program, 4 pm

FEBRUARY
17 – Zoom Program, 4 pm

Road-Tripping, Fall 2021: Three Serendipitous Discoveries

by Nancy Nies

THE BEAUTY OF A ROAD TRIP IS THAT, IN ADDITION TO TAKING you to places you've planned to go, it can lead you to make wonderful, unexpected discoveries. This past fall, Paul and I had three such experiences, happening upon places that CNPS members may find of special interest.



2 – View of garden, looking toward the southwest. *Pinus jeffreyi* (Jeffrey pine) in background; *Helianthus annuus* (common sunflower) in foreground.



1 – View of Lockhart Native Plant Garden, looking toward the northeast. *Salix lasiolepus* (arroyo willow) and *Salix laevigata* (red willow) in background at left; *Epilobium canum* (California fuchsia) in foreground. – Pine Mountain Club, 8 September 2021

Photos by Nancy Nies (except as indicated)

Discovery #1 – In a Mountain Community

On a sunny morning in early September, we set off from Bakersfield with fellow Kern CNPS member Suzanne Weller to spend a few hours botanizing along Cerro Noroeste Road, just west of Pine Mountain Club (PMC). Finding that road closed due to the

fire danger, we headed back to PMC. Along the road, Paul spotted a sign saying "Native Plant Garden." That sign piqued our curiosity, of course, and changed our plans for the day.

Come to find out, the garden has been there for twenty years, maintained during most of that time by community volunteers supervised by Mary Ann and Jim Lockhart, and has been recently renamed "Lockhart



3—Lockhart Garden, south entrance, with *Ericameria nauseosa* (rubber rabbitbrush) in foreground.

Native Plant Garden" in their honor.

Susan Amon writes in the October 2020 issue of *The Mountain Enterprise*, "Intrepid hikers and passionate educators, [the Lockharts] loved to tell people about the hardy native plants that need little water, attract pollinators like butterflies and produce intriguing blossoms."



4—*Asclepius fascicularis* (narrow leaf milkweed) with seeds. Lockhart Garden, – 8 September 2021

Located on Mil Potrero Highway, opposite the PMC Clubhouse entrance, the garden is home to more than thirty different native species, according to Pam De Vries, author of [A Field Guide to the Plants of the San Emigdio Mountains Region of California](#). We saw chaparral yucca, golden leaf currant, giant wild rye, sulfur flower, nude buckwheat, deer grass, desert paintbrush, and many others. The native-plant garden is attractively laid out, with a path winding through it and signs identifying the plants.

Since the above-mentioned article appeared, funds were

raised to acquire new plants, new plant identification signs, new garden signs, and new fencing material, and much has been accomplished by volunteers. The day we were there, splashes of color brightened the garden — the yellows of **rabbitbrush** and **sunflowers**, and the bright red of **California fuchsia**. To see photos posted over the past year on the garden's Facebook page, go to: https://www.facebook.com/pg/Lockhart-Native-Plant-Garden-104144508119395/posts/?ref=page_internal. We look forward to going

back in the spring, to see what's blooming then!



5—Mendocino Coast Botanical Gardens, Fort Bragg. Paul Gipe strolls along the North Trail, – 3 October 2021.

Discovery #2 — On the North Coast

Before leaving home on our longest trip of the year — twelve days in northern California and southern Oregon — Paul happened to mention our travel plans to a colleague during a business call. The gentleman, from the Fort Bragg area, recommended a visit to the **Mendocino Coast Botanical Gardens**, which the website www.gardenbythesea.org describes as "47 acres of botanical bliss fronting the Pacific Ocean."

The property comprises canyons, wetlands, coastal bluffs, and a pine forest. Its mission: "to engage and enrich lives by displaying and conserving plants in harmony with our Northern California coastal ecosystems and to preserve public access to the coast." We were pleased to learn that another of its goals is to educate the public on the subjects of ecology and stewardship, that about one-third of the property is devoted to ecological restoration, and that native plants are featured not only there but throughout the collections.

The mild coastal climate and acidic soils are well



6—Mendocino Coast Botanical Gardens, Dahlia Garden. A few of the many shapes, sizes and colors of dahlias in bloom. – 3 October 2021



7 – View from bluff, Mendocino Coast Botanical Gardens. From the Gardens' website: "A wonderfully weird forest of pines leads to the breezy bluff of the coastal prairies and views of the Pacific Ocean in all of its moods." – 3 October 2021.

suites to the plant collections, which include **heaths** and **heathers**, **rhododendrons**, **camellias**, **fuchsias**, **dahlias**, **magnolias**, **maples**, **succulents**, **begonias** and **conifers**, and last but not least, **native forests** and **bluff plants**. Six different rare and endangered plants can be found in the natural areas of the gardens. Once used for crops, the natural coastal grassland areas of the Gardens are being restored, and non-native, invasive grasses managed to protect native species like *Deschampsia caespitosa* (**tufted hair-grass**) and *Iris douglasiana* (**Douglas iris**).

The following link will take you to photos of the native plants you would see blooming in the Native Plant Garden and elsewhere in the Gardens from March through June: <https://www.gardenbythesea.org/about/photo-gallery/california-native-plants/>. It was early October when we were there, however, and we still witnessed lots of color. Most notable were the **Dahlia Garden** and the **Begonia House** —where



8 – Rhododendrons and other native plants in spring, Mendocino Coast Botanical Gardens, – 12 April 2014.

you'll see an abundance of vibrant blooms, even in fall. To see the *Iris douglasiana* and many other plants, both native and non-native, in bloom, however, a spring visit is definitely in order.

Discovery #3 – In a Redwood Forest

Six days later, after visiting friends in southern Oregon, we headed for the northwest corner of California, which would be our base for exploring the redwoods. We had not spent much time in the area, so instead of taking the main highway from Grants Pass to Crescent City, we chose the less-traveled route, through **Jedediah Smith Redwoods State Park**, which "made all the difference," to quote Robert Frost. (More about that later.) The next day, we would drive down busy Highway 1, through the **Redwoods National and State Parks**, stopping to enjoy the trails among the giant *Sequoia sempervirens* (**coast redwood**).



9 – Howland Hill Road, Jedediah Smith Redwoods State Park.

– 9 October 2021

We were awed by the height, and sometimes also the girth, of the coast redwoods, as well as by the fact that all the magnificent trees we saw represented less than 5% of the original old-growth redwoods that would still be there today, had they not been cut down for profit in the 19th century. Only a few were spared, and those are fortunately now protected as a national treasure.

The trees provide habitat for the multitude of plants growing far beneath them, including *Oxalis oregana* (**redwood sorrel**), *Pteridium aquilinum* (**western bracken fern**), *Polystichum munitum* (**sword fern**), and *Adiantum aleuticum* (**five-fingered fern**), to name just a few. The understory foliage, of various shapes, sizes and shades of green, beautifully complements the giant trees. Taking this hike in the fall whetted our appetites for a return visit in the spring, to see the **sorrel violets**, **leopard lilies**, and **rhododendrons** blooming.



10 – Mill Creek Trail, Jedediah Smith Redwoods State Park, Paul Gipe is barely visible ahead on the trail, at the bottom of the photo. – 9 October 2021



11 – Mill Creek Trail, *Sequoia sempervirens* (coast redwood)
trunks frame a view of other trees of the species. – 9 October 2021.

time in the redwoods. The trees towering overhead were, of course, awe-inspiring, and the plants growing beneath them, lush and green; the narrow road made for fewer cars and slower driving; and the sunlight filtering through the shade of the forest canopy added softness to the experience. All of these factors combined to make it a quiet, peaceful place, like some remote, mysterious other world. The **California State Parks** website states that there are no roads or trails in the core of the 10,000-acre park, just “*pure, primeval majesty.*”

We stopped several times to appreciate this impressive place. At one stop, we happened to pull over just a few yards from a sign indicating the **Mill Creek Trail**. This trail, which could not be more different from the trail by the same name in our own Kern Canyon, turned out to be one of the highlights of our trip. It meandered, climbing and descending, sometimes on a metal walkway, as it led us to the **Grove of the Titans**. For more information on the hike and photos of the trail, see: <http://www.redwoodhikes.com/JedSmith/MillCreek.html>. When we returned to the car, drove on, and finally emerged, bleary-eyed, from the deep shade of the redwood forest into the full sunlight of the afternoon, we felt as if we’d just awakened from a dream — one we would never forget.

The moral of these three stories: When you’re traveling by car, be on the alert for unanticipated opportunities. You never know when serendipity may lead to discoveries that just might provide you with the best



12 – Big Tree Circle Trail, Prairie Creek Redwoods State Park,
Nancy Nies poses among the old growth redwoods. – 10 October 2021.

Photo by Paul Gipe

Cactus Work at Tollhouse Ranch

by Lucy Clark

ON CHILLY NOVEMBER 7TH, A GROUP gathered at Caliente to help **Zach Principe** and **Rachel Mason** of **The Nature Conservancy** document the state of our transplanted rare Bakersfield cactus, *Opuntia basilaris* var *treleasei*. This annual monitoring is required by the **California Department of Fish and Wildlife**. We counted the number of pads and evaluated the health of each plant on a scale of 1 to 5. Incidental weeding also occurred. Then our Valley oak seedlings were watered, and acorns were replanted in cages in which the seedlings had not survived.



Photo courtesy U.S. Forest Service

With that work finished, we all went east to the **Beard Ranch**, to see the location of its existing Bakersfield cactus plants, where we will harvest pads in January. We checked out the drainage where we will plant the pads a few weeks later, to increase and spread these rare plants. Zach showed us maps of TNC properties in the area, and how the organization is conserving land for large animals to migrate through from the Sierra Nevada to the Coastal Range, which was exciting to see! We are looking forward to a visit to the new **Tehachapi Preserve**.

The enthused participants were: **Ellen Cypher** (The Expert), **Bill Nelson**, **Deb See**, **Bill Moffat**, **Reema Hammad**, **Margaret Gallagher**, **Pat Mumford**, **Elyja Madera**, **Jon Hammond**, **Saya Novinger**, **Clyde Golden**, and **Lucy Clark**. Our thanks go to all of the above.

If you would like to participate in the second phase of cacti planting (and all that follows), please let Lucy know at lucyg391@gmail.com. The work, and fun, in a beautiful place will continue! All are welcome. ♡

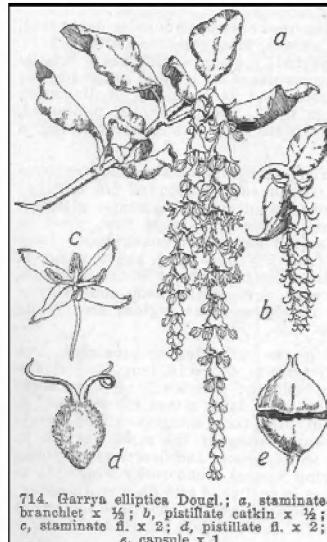
President's Message: The Silk Tassel Bush in Kern County

by Rich Spjut

SILK TASSEL BUSH — THE GENUS GARRYA — gets its common name from flowers that develop in pendulous catkins — like tassels hung on a

Christmas tree, the males and females on separate plants (**dioecious**). Six species have been recognized in California (Subgenus *Garrya*), but could not be differentiated by their DNA-ITS sequences.ⁱ Nevertheless, they continue to be distinguished by the hairiness of their leaves and immature fruits.ⁱⁱ

Fruits of *Garrya* are often described as a “berry;” however, fruits in most species in the genus are a type of capsule.ⁱⁱⁱ **Gerald Dahling**, who published a revision of *Garrya* in 1978,^{iv} noted that “*much of the flesh of the fruit is derived from the outer layer of the single massive integument*” [immature seed coat].^v “*In drying, this flesh gradually withdraws, forming a thin papery covering [pericarp] around the seeds.*” “*At maturity,*



714. *Garrya elliptica* Dougl.; a, staminate branchlet $\times \frac{1}{2}$; b, pistillate catkin $\times \frac{1}{2}$; c, staminate fl. $\times 2$; d, pistillate fl. $\times 2$; e, capsule $\times 1$.

Above: Illustration in Jepson 1925, Manual of the Flowering Plants of California. Observe e: dehisced (circular opening) capsule. **Below:** opened and unopened capsules, “*foraminicidal capsule*” in Spjut (1994), of *G. flavescens* from plant north of Caliente. Note persistent base of open capsules, the top third gone.



two-thirds of the fruit remains hollow with seeds occupying only the terminal portion.” The capsules release usually one or two dull black seeds by the top half to third portion of the pericarp (**exocarp**) rupturing transversely in a circular manner, or by the pericarp splitting in a less regular manner. This probably occurs as a result of two pendulous ovules, maturing to seeds, growing down from the apical region, causing the pericarp to rupture at its weakest point below.

Generally, only one species of *Garrya* has been recognized in Kern County,^{vi} often seen along ridges in association with species of oak, manzanita, buckbrush, and flannel bush, or may form an alliance as seen on Piute Mt.; however, there are at least two species. About nine years ago (Feb 2013), **Clyde Golden** sent me a photo that he reported taking of a *Garrya* bush in May 2012 along Sawmill Rd on the east slope of the Greenhorn Mountains. He identified it as *Garrya cf. fremontii*, based on lack of hairs on the leaves, while the young shiny immature (green) ovary, without hairs, convinced me that it was indeed *G. fremontii*.



Above: *Garrya fremontii*, Greenhorn Mts., Sawmill Road. Observe shiny green ovaries. **Below:** *G. flavescens* ssp. *flavescens*, north slope of Mt. Abel. Observe furry ovaries.



Photo by Clyde Golden

Photos by R. Spjut except as indicated.



From Dahling (1978).

Above left: *Garrya flavescens* ssp. *pallida*, Piute Mt., yellow green leaves lack hair on undersurface. **Right:** Distribution map of *Garrya* species in California, not all on this map. Stars are for *G. flavescens*, dark stars = ssp. *pallida*, clear stars = ssp. *flavescens*. Note they closely overlap in Kern County. Solid circles = *G. fremontii*.

Calflora (accessed Dec 13, 2021) shows two records for Kern County, but the details for the location are actually in Tulare County; thus, the only reported occurrence in Kern County for **Fremont's silk tassel bush** has been on the WBA web page under *Trees and Shrubs of Kern County*.^{vii}



Hairs point to leaf apex. – Piute Mt.



Hairs point to the base. – Short Canyon.

straight leaf hairs lying flat on the undersurface (**strigose**) pointed towards the leaf tip, but the direction can vary. They may also point to the base, or rise above as shown below. Hairs generally form a continuous cover in contrast to *G. veatchii* (type from Isla Cedros!) with minute hairs in discrete patches, the hairs tiny, curly, and interwoven. ☀



Hairs point to neither apex nor base. – Short Canyon. All *Garrya flavescens* ssp. *flavescens*. Note also hairs bifurcate at base.

ENDNOTES.

- i Burge DO. 2011. Molecular phylogenetics of Garrya (Garryaceae). *Madroño*, 58(4):249-255. ii The Jepson Manual, 2nd ed., 2012, Garryaceae, TF Daniel.
- iii Bacigalupi R. 1924. A systematic study of the genus Garrya. Unpublished Master's Thesis, Stanford Univ. 39 pp. Jepson WL. 1923, 1925. A Manual of the Flowering Plants of California. University of California Press.
- Spjut RW. 1994. Systematic treatment of fruit types. Illustrations by Karen Parker. *Memoirs of the New York Botanical Garden* 70, 181 p
- Dahling GV. 1978. Systematics and evolution of Garrya. Contributions to the Gray Herbarium of Harvard University 209: 1-104.
- The outer layer, integument: Latin: integumentum = blanket, cover, from integere = to cover the ovule. Plant reproduction progresses from flowers to fruits following pollination of the stigma which then the pollen grain develops a tube cell, and along with two sperm cells, they travel down the style to the ovary, making their way into the ovule through a micropyle; one sperm fertilizes the ovule egg (cell), the other fuses with two other polar nuclei to make the food (endosperm) for the seedling (double fertilization). The maturation of the ovule(s) to seed(s), along with the ovary and accessory structures that help disperse the seeds, makeup the fruit (Spjut 1994). In *Garrya* the outer seed coat (testa) becomes fleshy but then dries and disperses seed(s) by rupturing of the ovary wall, which includes accessory receptacle tissue in the capsular fruit. Since the fruit is generally dry at maturity, and since dispersal of the seeds occur by rupturing of the pericarp, it cannot be a berry, especially since half to third of the capsule remains attached to the plant. Berries generally disperse whole.
- Twisselmann EC. 1967. A flora of Kern County, California. Illustrated by Eben and Gladys McMillan. University of San Francisco. Reprint, Wasmann J. Biol 25: 1-395.
- Moe LM. 2016. Kern County flora. A key to the vascular plants of Kern County. California Native Plants Society, Sacramento, CA.
- Trees and Shrubs of Kern County: Garrya. World Botanical Associates, web page (www.worldbotanical.com), last updated June 2014.



Dehisced foraminicidal capsule with pendulous black seed.

©Alice Cummings, cropped by R. Spjut

President Seeks Help: Tentative Council Meeting to be held, June 2022

AT CHAPTER COUNCIL MEETINGS, I HAVE been asked on two occasions if our Chapter would host a Council Meeting. The last time we did this was when **Dorie Giragosian** was President. In helping her, and also from attending quarterly pre-pandemic meetings, I learned just how much effort is involved. I am thinking the June 2022 meeting might be possible. Unlike Dorie, I would need help in finding suitable lodging, campgrounds, and leaders for field trips, and in organizing the agenda. Those who like to help, please contact me. This is very tentative since we don't know if COVID will still be a problem.



— Rich



LINK:

[The Forest Service's Massive Hazard Tree Removal Proposal](#)



CNPS is the leader for providing reliable information on California native plants and plant conservation. Comprehensive information about California's flora and vegetation communities is available throughout the state for conservation and educational purposes. CNPS's leadership influences personal ethics and actions, as well as public policy for native plant protection.

Chapter ZOOM Meetings

upcoming TOPICS

January 20, 2022 — 4 pm

Presenter: Peyton Elias, Master Gardener, owner of **Quercus Landscape Design**
Topic: *Native Plants for the Garden*

February 17, 2022 — 4 pm

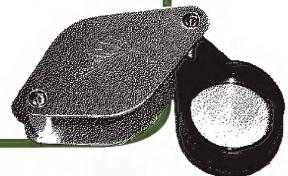
Presenter: Brooke Stutz, Staff Biologist, Padre Associates
Topic: *Learning the Jepson language: Plant ID Basics*

REGISTER for these events:

E-mail Paul Gipe (pgipe@igc.org)

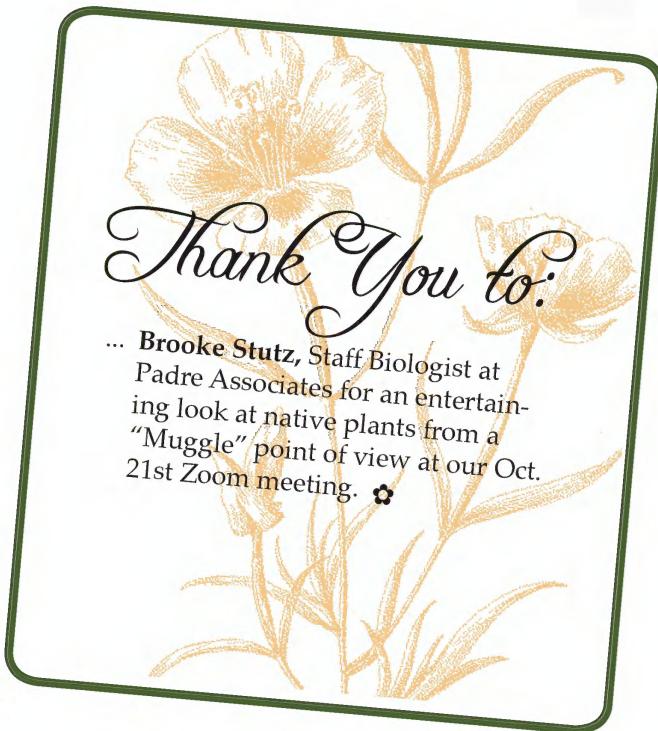
Security Notes:

1. Please arrive early. Late arrivals admitted at discretion of host.
2. Use your real name, NOT a screen name, alias or name of your device.
3. Do NOT share the link to meeting with anyone. ☀



Thank You to:

... **Brooke Stutz**, Staff Biologist at Padre Associates for an entertaining look at native plants from a "Muggle" point of view at our Oct. 21st Zoom meeting. ☀



Contacts:

President – Rich Spjut richspjut@gmail.com
Vice President – OPEN
Coordinator – Paul Gipe ppipe@igc.org
Treasurer – Monica Tudor dosportas@msn.com
Secretary – Sasha Honig andym5@bak.rr.com
Conservation – Fred Chynoweth rdmmt18@gmail.com
Council Delegate – OPEN
Field Trips – Patty Gradek pattygradek@gmail.com
Newsletter – Dinah Campbell mimulus.memo@gmail.com
Plant Sale – Monica Tudor dosportas@msn.com
Programs – Paul Gipe ppipe@igc.org
Rich Spjut richspjut@gmail.com
Publicity – OPEN
Membership – Andy & Sasha Honig andym5@bak.rr.com



Rare Plants – Clyde Golden cgold6666@hotmail.com
NATIVE PLANT SOCIETY Webmaster – Rich Spjut richspjut@gmail.com

The Kern Chapter of the California Native Plant Society meets the third Thursday of each month at: Kern County Superintendent of Schools City Centre, Room 1A or 1B 1300 17th Street, Bakersfield, CA. Chapter website:

CNPS-Kern Chapter
c/o Dinah Campbell, Editor
2100 Jason St.
Bakersfield, CA93309-2949
mimulus.memo@gmail.com



Mimulus Memo



Inside this Issue:

THREE SERENDIPITOUS DISCOVERIES
THE SILK TASSEL BUSH IN KERN COUNTY
CACTUS WORK ON TOLLHOUSE RANCH